R E P O R T R E S U M E S

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A SURVEY OF DENTAL ASSISTING CURRICULA IN THE CALIFORNIA JUNIOR COLLEGES, PRELIMINARY DRAFT.

CALIFORNIA STATE DEPT. OF EDUCATION, SACRAMENTO

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IN ORDER TO PROVIDE DATA FOR CONSTRUCTING A MODEL DENTAL ASSISTANT TRAINING PROGRAM, 22 OF THE 26 PROGRAMS IN CALIFORNIA JUNIOR COLLEGES WERE REPORTED. TRENDS NOTED INCLUDE AN INCREASE TO A FOUR-SEMESTER PROGRAM, WITH INCREASING EMPHASIS IN THE FIRST SEMESTER ON ETHICS, PROFESSIONAL ORGANIZATION, GROOMING, AND TERMINOLOGY. THE AVERAGE TIME ALLOTMENT WAS 1,086 HOURS PER STUDENT, INCLUDING 179 HOURS IN BIOLOGICAL SCIENCE, 221 IN PHYSICAL SCIENCES (INCLUDING ROENTGENOLOGY), 181 IN CHAIRSIDE PROCEDURES, 224 IN SUPERVISED FIELD EXPERIENCE, AND 271 IN DENTAL LABORATORY AND OFFICE PRACTICE. A WIDE VARIATION IN GENERAL EDUCATION PRACTICES WAS NOTED WITH AN AVERAGE OF 479 HOURS PER STUDENT IN ENGLISH, SPEECH, HUMANITIES, TYPING, SOCIAL SCIENCES, AND OTHER COURSES. IT IS RECOMMENDED (1) THAT THE THIRD SEMESTER BE IN A DENTAL SCHOOL, CLINIC, OR HOSPITAL, (2) THAT THE FOURTH BE IN PRIVATE OFFICES, (3) THAT THERE BE AN ORIENTATION OF STUDENTS AND DENTISTS PRIOR TO CLINICAL EXPERIENCE, AND (4) THAT THERE BE ONE SUPERVISOR FOR EACH SIX STUDENTS. A MODEL PROGRAM OUTLINE IS PRESENTED. (WO)

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A Survey of Dental Assisting Curricula in the California Junior Colleges

Bureau of Industrial Education

State Department of Education

Sacramento
1966

PRELIMINARY DRAFT

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PART TWO

PROGRAM OF INSTRUCTION: A MODEL

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Curriculum construction and improvement has been, and in all likelihood will continue to be a challenge in Industrial Education.

Constant change in techniques, skills, and knowledge required in the semi-professions and industry have become a hallmark of our times.

It is extremely important, therefore, that the industrial education programs in our schools maintain a constant watch over this area of the instructional program to insure that subject matter and competencies taught in these classrooms and laboratories reflect the true and changing requirements of their counterparts in the world of work.

This publication is intended to aid such revisions in one area of industrial education in our California junior colleges -- Dental Assisting Education.

Richard D. Nelson

Introduction

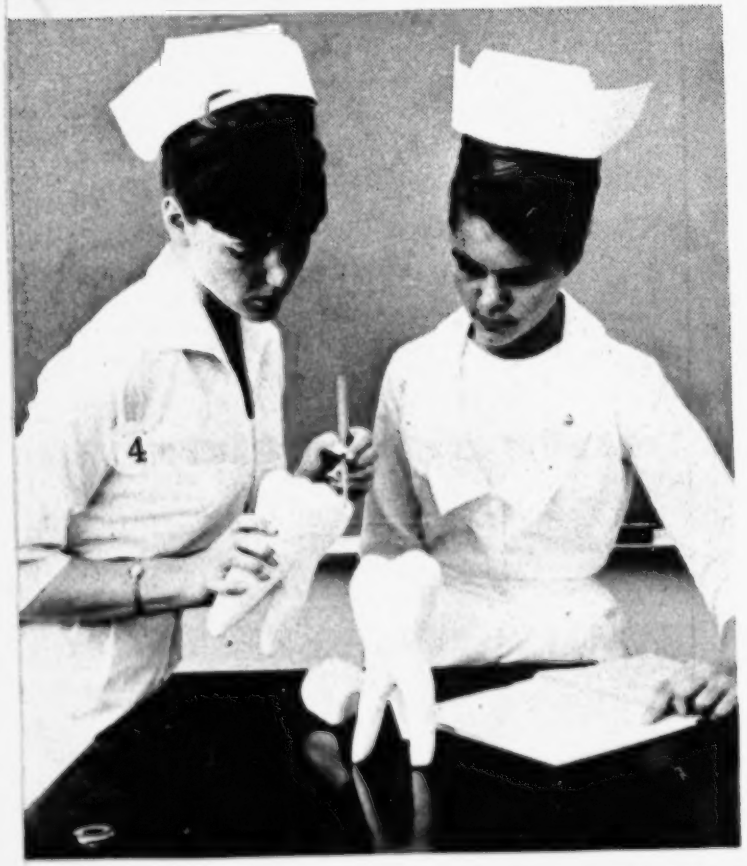
This study is a culmination of a two-year survey of the curricula of the dental assisting programs in the California junior colleges.

It is primarily a report of what is presently being taught in these classes. The Course of Study in Part II represents a composite statement drawn from the responses to a survey form from twenty-two schools conducting classes in Dental Assisting.

The course of study should not be interpreted as an optimum program to be followed, rather it should be seen as a base by which a school may evaluate its program and plan its curricular changes in this field of instruction. Hopefully, its use will lead to an orderly state-wide pattern of improvement; a uniform growth rather than a standardized curriculum; and a more precise understanding of the program on the part of the dental profession and schools alike.

This study was made possible by the contribution of time and effort on the part of many junior college dental assisting instructors and their ad hoc committee called for this purpose.

Representatives of the schools and dental associations appearing in this report gave freely of their time and effort in consultative activities.



DIFFERENT AND CHANGING DEMANDS BY THE DENTAL PROFESSION

The growth of Dental Assisting Education in the California junior colleges is not unlike the developmental pattern of the colleges themselves -- a growth from often humble beginnings to some very sophisticated programs and facilities. As the junior colleges have reflected local needs, tastes, and demands, so dental assisting programs have grown under local control to meet the needs peculiar to each dental community. It is not surprising, therefore, that in the twenty-six programs in the State, a wide variety of curricula, facilities, and amounts of financial support have appeared over a twenty-year period.

Such statewide diversity created a situation where norms were difficult to establish or recognize; difficulties were encountered by directors and advisory committees in determining the trends of their programs in relationship to other programs in the state. Still other problems were encountered in transferring students or teaching personnel from one program to another.

Other than geographical separation, what facts may be seen to have contributed to this wide disparity from a common norm? A few of these factors have been identified as follows:

DIFFERENT AND CHANGING DEMANDS BY THE LOCAL JUNIOR COLLEGE

Custom and the economic pattern of the various geographical areas largely determined, apparently, the extent to which local dentists made use of assistants, if at all; what tasks these girls were required to perform; and what knowledge they needed. The equipment and techniques used by local dentists had their effect on the equipment used in the school. The amount and type of administrative duties assigned to her in the office were also reflected in demands on the dental assisting educational programs in the junior colleges.

Most of the schools that were investigated conducted four-semester programs leading to the AA degree. As the requirements for this degree differed, the time alloted to dental assisting courses differed. A wide variety and proliferation of course titles were revealed in the pilot study. This variance of necessity had to be resolved and common denominators found before a serious investigation could be undertaken. Local academic policies largely determined this factor in most schools. The wide variation in programs seemed to involve then, a variety of factors, all changing at differing rates of change and at different stages in their patterns.

THE PROBLEM CONFRONTING THESE GROUPS RAISED SEVERAL INTERESTING QUESTIONS

It was not, nor presumably should it be the goal of the survey to imply a systematic, monolithic, identical program throughout California junior colleges. On the other hand, a determination of a norm from which to scale the position and progress of any one program was seen before and during the study to be of great importance to directors, instructors, and local advisory committees of dental assisting education in California.

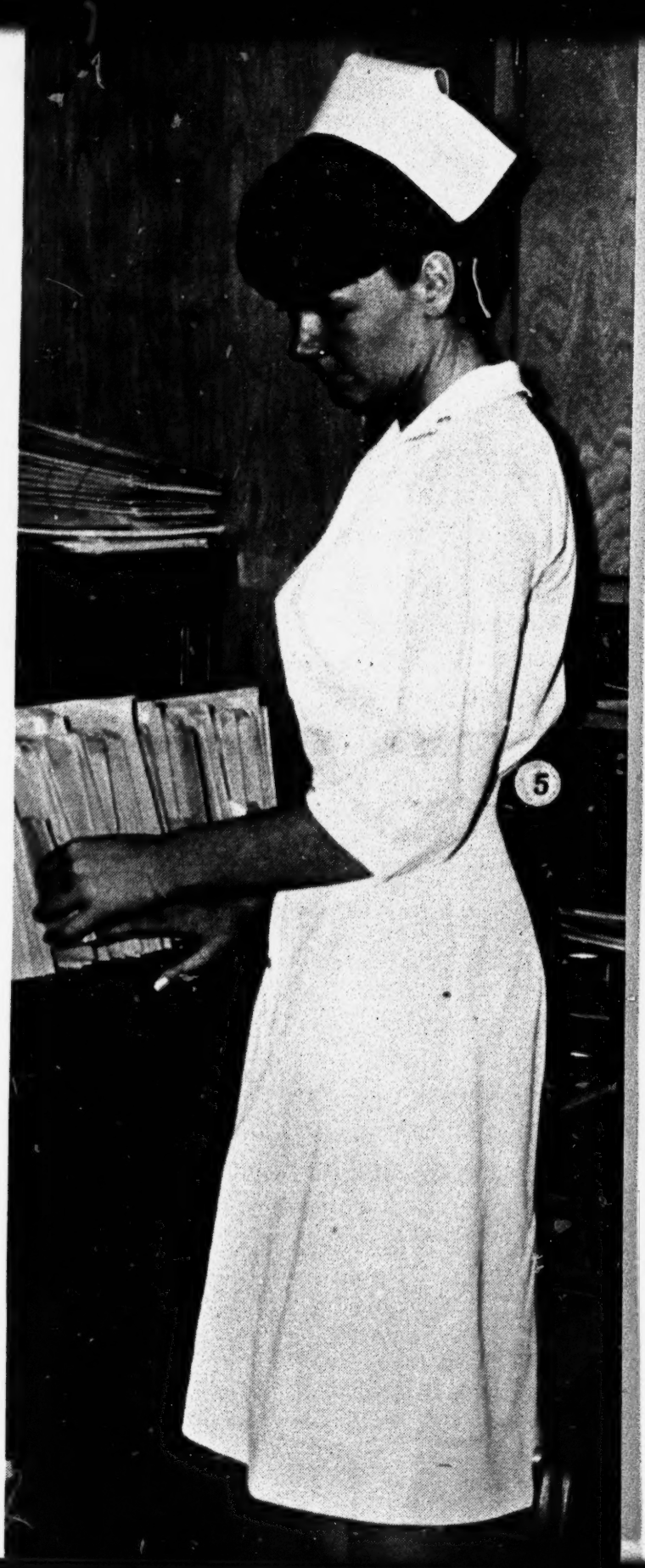
The problem confronting these groups as reported above raised several interesting questions:

1. How may individual and unique progress and growth be encouraged without fragmenting any one program completely from the rest of the programs in the State?

2. How may norms be established for measuring progress or establishing the position of a program?

3. How may inter-school cooperative curriculum development activities be increased?

4. How may a desirable amount of standardization be achieved without inhibiting individual school experimentation toward superior programs?



3. To determine the number of hours and days of instructions in two-, and three-, and four-semester programs

4. To verify the existence and extent of commonly accepted instructional areas in the dental assistance curriculum and the content of each area in terms of knowledge, skills, attitudes, and appreciations

5. To accumulate the data for and to execute a course of instruction common to the California junior college program

6. To accumulate the data for and execute a model descriptive list of typically required physical facilities, equipment, and supplies.

THE RATIONALE OF THE SURVEY

As the purpose of the survey was to establish a model program of dental assistant education -- a model drawn from an average, normative account of what was then current in the junior college programs -- the following assumptions were involved:

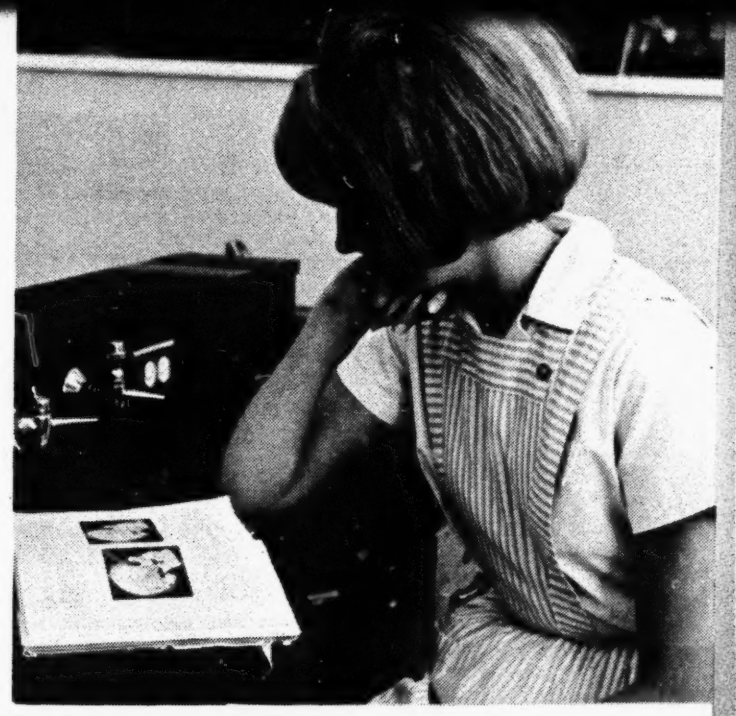
1. Differing terminology could be reconciled

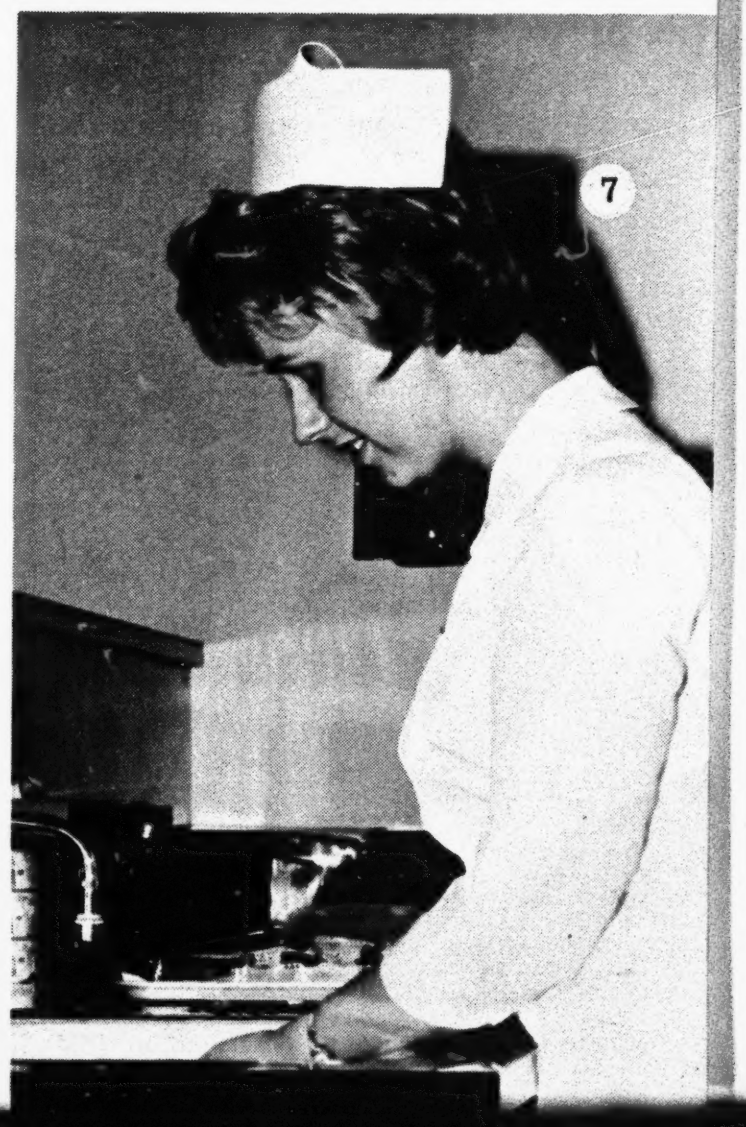
2. Common factors could be identified in differing course titles

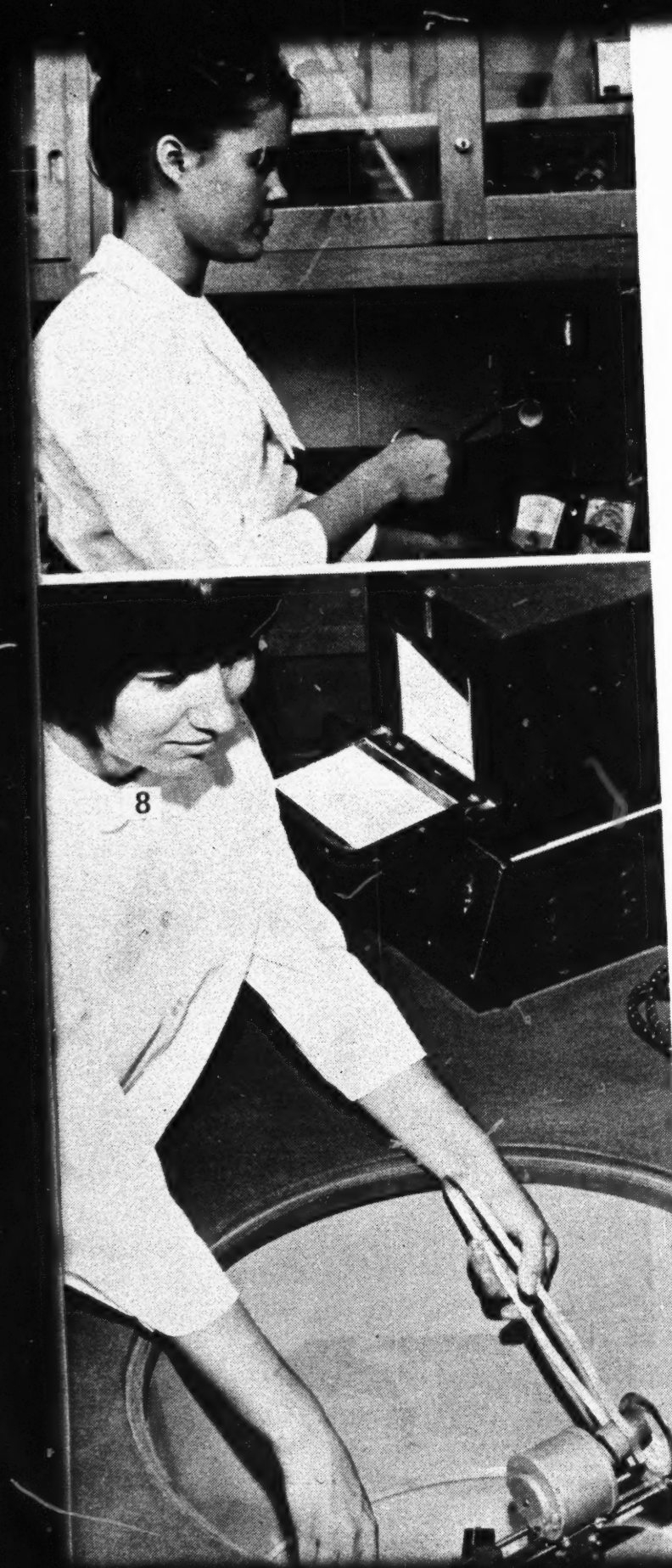
3. Common major areas of instruction could be identified in spite of differing titles, terminology, and organization

4. An instrument could be designed to elicit valid responses in spite of the above differences.

If a pilot study revealed an affirmative answer to each of the above assumptions, then it appeared that these commonalities would lend themselves to a reasonably valid statewide analysis by means of a major study. The value of this survey would lie in the model, phrased in the terminology identified by the schools themselves, from which each school would be able to establish its own position in terms of the ordered responses of any other school or all of them together.







CHRONOLOGY OF THE SURVEY

In response to an increasing amount of correspondence between members of the dental profession, the dental assistant's associations, the junior colleges, and the State Department of Education through its Bureau of Industrial Education, representatives of these various groups met at Foothill College, Los Altos Hills, California, in July, 1963. At the meeting they identified the basic problems affecting standardization of dental assisting programs in California. The Bureau of Industrial Education was asked by this group to undertake the survey herein reported.

The pilot survey as described earlier was designed, circulated for approval, and reviewed at a meeting in Anaheim, California, in March, 1964. An ad hoc committee of dental assisting instructors was organized to facilitate, among other things, the communications and the mechanics of the survey.

The results of the pilot study were reported to the field at a meeting in Toland Hall, University of California Medical Center, in November, 1964. This pilot study affirmed the hypothesized need for clarification of terminology and more adequate reporting procedures.

The construction of the major instrument was then undertaken; it was presented to an examining group of dental assistant instructors at Monterey Peninsula College in March, 1965. This group edited the document and endorsed its distribution.

In August, 1965, the results of the major survey were presented in general terms at a four day workshop of dental assisting instructors at Asilomar, Pacific Grove, California. It was at this meeting that the elements of the model course of instruction were identified and organized, that existing supply and equipment lists were reviewed and supplemented, and recommendations were made for physical facilities and space requirements.

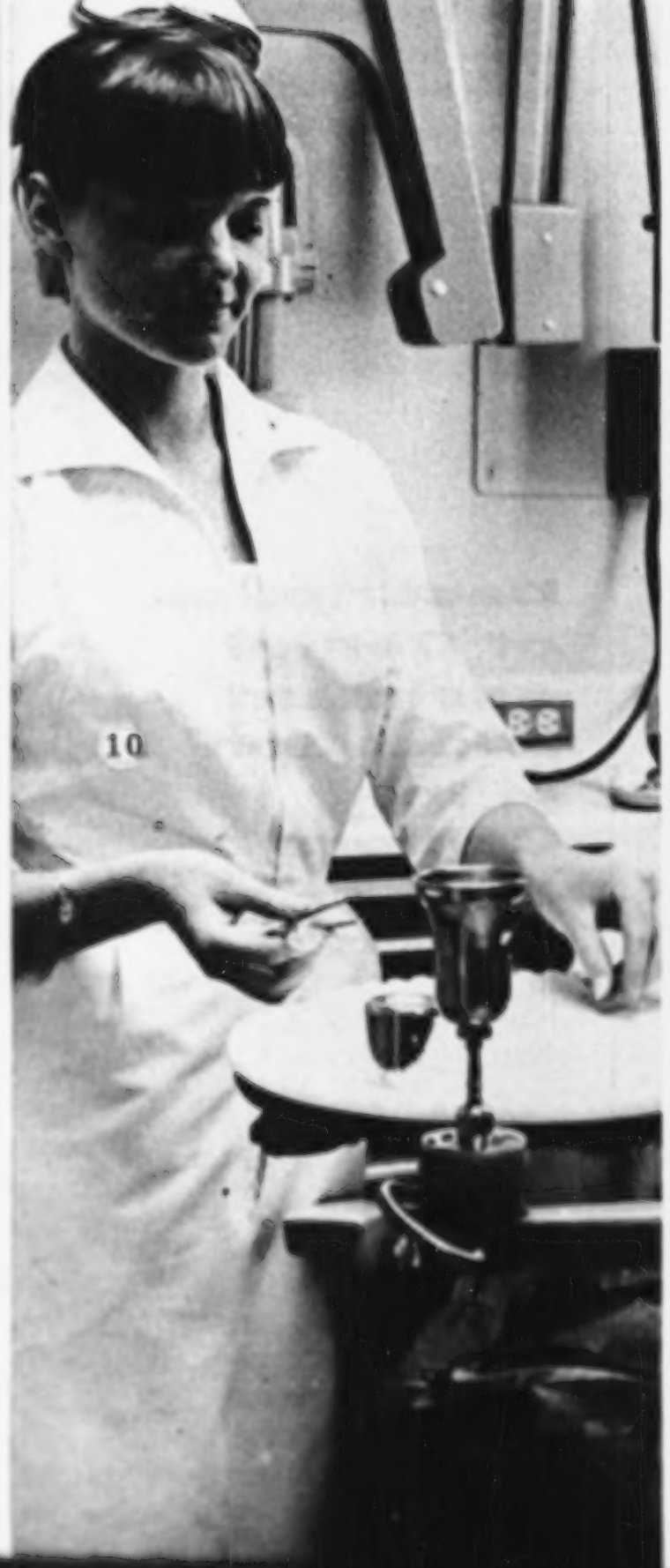
TWENTY-SIX OF CALIFORNIA'S EIGHTY JUNIOR COLLEGES WERE OFFERING PROGRAMS IN DENTAL ASSISTING IN 1965. THESE WERE:

Cabrillo College, Aptos
Cerritos College, Norwalk
Chabot College, San Leandro
Chaffey College, Alta Loma
Contra Costa College, San Pablo
Diablo Valley College, Concord
Foothill College, Los Altos Hills
Fullerton Jr. College, Fullerton
Grossmont Jr. College, Spring Valley
Laney College, Oakland
Long Beach City College, Long Beach
Los Angeles City College, Los Angeles
College of Marin, Kentfield
Merced College, Merced
Modesto Jr. College, Modesto
Monterey Peninsula College, Monterey
Orange Coast College, Costa Mesa
Pasadena City College, Pasadena
Reedley College, Reedley
Sacramento City College, Sacramento
San Diego Mesa College, San Diego
City College of San Francisco, San Francisco
San Jose City College, San Jose
College of San Mateo, San Mateo
Santa Rosa Jr. College, Santa Rosa
College of the Siskiyous, Weed

One of these programs was in a formative stage at the time of the study, two were too new to have their laboratory facilities in operation, and one responded inadequately to the survey. Thus, 22 of the 26 were included in the study.

While this study concerned itself only with junior college programs, it should be noted that there was also a variety of other dental assisting programs in California.

Geographically, most of the junior college programs cluster around the San Francisco and Los Angeles areas. Others, however, range down the central valley and extend to the borders of Oregon and Mexico.



CERTAIN FACTORS AND GROUPS UNDOUBDTEDLY HAVE HAD A UNIFYING EFFECT ON THESE PROGRAMS. BESIDES THE STATE DEPARTMENT OF EDUCATION, SOME OF THESE HAVE BEEN:

The American Dental Association, Council on Dental Education
The American Association of Junior Colleges
The American Dental Assistant's Association
The California Dental Association
The California Junior College Association
The Southern California Dental Association
The Northern and Southern California Dental Assistant's Associations.

INTERPRETATION OF THE DATA

Care should be used in the interpretation of the following data, particularly in relation to two factors: the "average" numbers used; the use of the term "net instructional time."

(a) The use of "average."

For the purpose of this Summary Report, the average numbers of hours are used in the various categories. This is done with the full knowledge that extreme "highs" and "lows" make this practice questionable. The fact, however, that in some programs the extremes may have reflected trial efforts to decrease or to increase certain areas of the program modified the objection in this case.

A full tabulation of responses from the 22 schools may be obtained at a later date that will present the actual responses with the mean and mode given in each category.

(b) The use of "net instructional time."

Instructional time was divided into three categories: (1) Time spent in direct teaching in the classroom, laboratory, or on field trips; (2) Necessary time spent in classroom organization and management but directly related to the instructional material, such as testing; (3) Hours necessarily spent in occasional school activities, but which should not be attributed to the dental assistant program -- assemblies, rallies, etc. For the purpose of this survey, categories (1) and (2) above were included as instructional time; (3) was not.

TYPES OF PROGRAMS

A continuing trend toward the longer program was revealed in the study. Of the 22 schools, 15 were conducting four-semester programs; there were three three-semester programs; and two-semester programs appeared in four schools

ALLOCATION OF TIME TO DENTAL ASSISTANT PROGRAMS IN THE COLLEGE

Number of Days Taught.

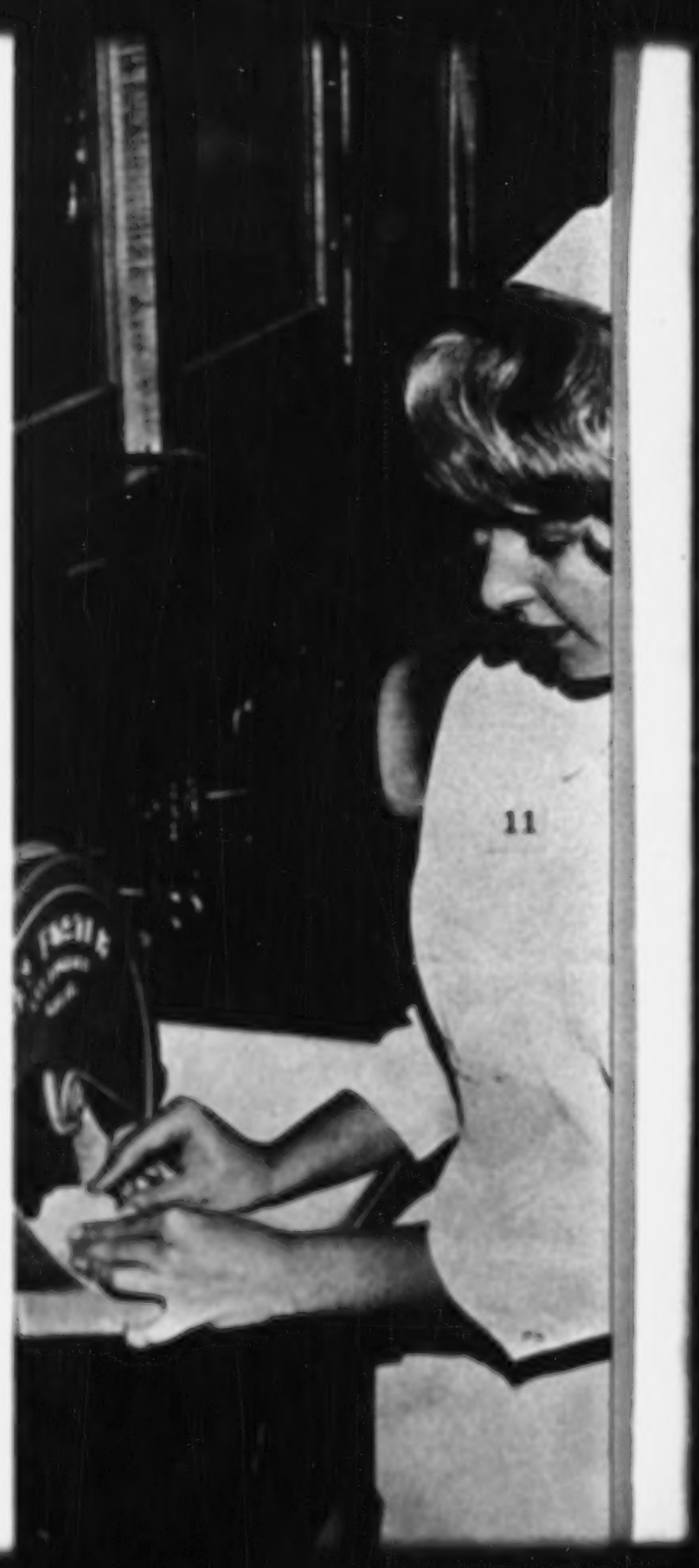
During the two-year period of the four-semester program, students attended an average of 356 days. The three-semester students attended 258 days, and those in the two-semester program were in attendance 174 days.

Numbers of Instructional Hours per Day in the Dental Assistant Program.

The average number of hours per day reflects the inverse pattern for the two-, three-, and four-semester programs, which might be expected. Thus, to achieve the same total number of hours -- a little over 1,000 -- that is apparently required to prepare dental assistants, the four-semester program required only 3.26 hours per day. In the meantime, the three-semester students were attending 3.81 hours per day; the two-semester students attended six hours in their dental assisting classes.

Number of Net Instructional Hours.

The data revealed that statewide, in two-, three-, and four-semester programs taken together, the average total number of instructional hours spent in dental assisting classes per student was 1,086. The four-semester students in their 15 programs averaged 1,124 hours, the three three-semester programs averaged 955 hours, and the four two-semester programs required 1,042 hours on the average.



TIME UTILIZATION IN TERMS OF ACTIVITIES

Still another divergency among the California junior college programs appeared in the percentage of time that was divided between lecture periods and laboratory procedures. This was complicated to some extent by the time spent on field and observational visits to clinics, vendors, and dental exhibits. The pilot study had identified this as an area to be investigated in the final survey. Figure 6 presents the allocation of the average time to these three activities -- lecture, laboratory, and field work -- in the two, the three, and the four-semester programs.

TIME UTILIZATION IN TERMS OF INSTRUCTIONAL AREAS

At this point the discussion narrows in scope to a presentation of the four-semester program only. As neither the two nor the three-semester programs varied radically from the four-semester programs in their net instructional hours, this summary will consider only the latter in terms of instructional content.

The pilot study earlier identified seven instructional areas common to the program throughout California. This list at that time included the general education requirements accompanying the dental assistant curriculum.

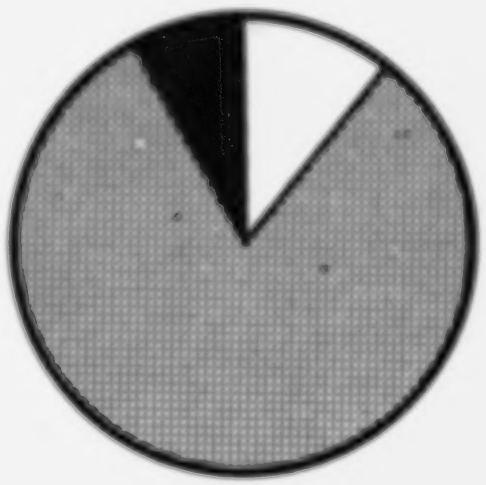
At Monterey in 1965, it was determined to exclude these general courses from the survey data because of the widespread overlapping and lack of uniformity. It was decided instead, to include them only for general comparative purposes. At the same time the Clinical Sciences were separated into two components -- chairside procedures and dental laboratory procedures.

Therefore, the data to follow is reported in terms of the following instructional areas in the dental assistant curriculum as currently taught in California in the four-semester programs. As described above, this chart reflects the average net instructional hours of the four-semester program only.

Section	Title	Average No. of Hours
I	Introduction to Dental Assisting	48
II	The Life Sciences	179
III	The Physical Sciences	221
IV	The Clinical Sciences -- Chairside Procedures	181
V	The Clinical Sciences -- Dental Laboratory Procedures	146
VI	Practice Administration	125
VII	Supervised Practical Experience	224
	The Four-Semester Program Total --	1,124
VIII	General Education (Approximate)	479

Section I

INTRODUCTION TO DENTAL ASSISTING



The survey revealed that an average of 48 hours of instructional time was spent on introduction of new students to the dental assisting field. Of this total six hours were spent on the history of the profession, areas of practice, and the growth of the "team" concept in dentistry. The ethics of this occupation in terms of intra-office and external relationships required another six hours during the first semester.

Professional grooming -- personal appearance, cleanliness, and clothing -- required another six hours of lecture plus one hour of demonstration in the laboratory, an important factor.

The students' first major field trips, however, occurred in this process when the instructor introduced these students to the professional organization of dentistry. Trips to clinics, laboratories and private offices consumed five hours of field trip time plus five hours of demonstrations, lectures, and discussions.

The terminology of dentistry and the dental assistant position still required, nevertheless, a full 13 hours of lecture presentation, of which one hour was spent in the laboratory.

Testing and evaluation in the learning process consumed four hours of the instructional time, three in the classroom and one in the laboratory.

Another function of teaching -- the establishment of a social structure in the classroom environment with tasks and responsibilities for each member -- required another two hours, one in lecture and one in laboratory demonstration.

Thus, forty-eight hours, generally confined to the first semester were spent, as reported, in the introduction of the student to her chosen occupation: 39 hours in lecture; four hours in the laboratory; and five spent on field work.

TREND: Increasing emphasis on ethics, professional organization, grooming, terminology, and classroom testing.

One hundred and seventy-nine hours were reported to have been spent in the study of the life sciences pertinent to dental assistants. Bacteriology and sterilization techniques required 22 hours of laboratory time with 18 supporting lecture hours.

Oral anatomy was felt by these 22 reporting schools to be very important in the dental assistants' education. Seventy hours of lecture augmented by 43 hours of laboratory work were spent studying Morphology, Growth and Development, Histology, and Pathology.

The Biological Sciences -- anatomy of the head and neck -- required 16 of the 18 hours reported in this area with two hours of laboratory work. Laboratory experiences occupied two of the 10 hours spent in Diet and Nutrition.

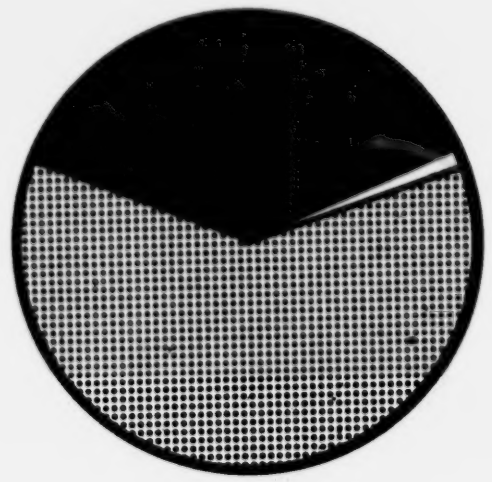
Classified under Psychology, the area of effective communications was granted 17 of the instructional hours with two hours reported as laboratory experiences.

In the 179 hours devoted to the Life Sciences, 10 were spent in the evaluation of learning, with six of these in the classroom and four in the laboratory. Some tooth carving, drawing, and some study of anesthesia were reported under this heading, about eight hours all together. Again, five hours were spent in classroom organization and management, three in the classroom, and two in the laboratory.

In summary, 179 hours were reported as spent in the Life Sciences: 112 in the classroom; 66 in the laboratory; and, on the average, one hour was spent in field experience.

TREND: No increase in time in this area was predicted.

Section II
THE LIFE SCIENCES



Section III
THE PHYSICAL SCIENCES

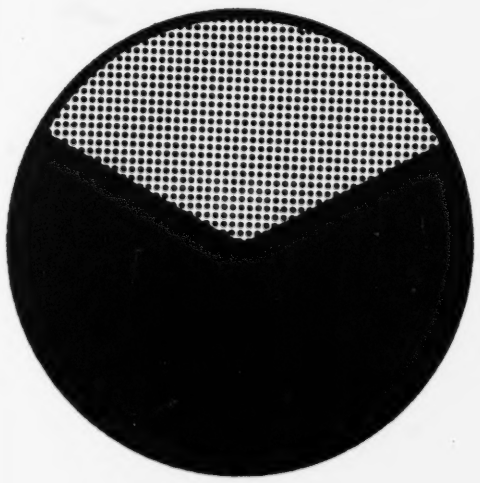
The junior college dental assistant instructors in California spent 221 of their 1,124 instructional hours (or roughly 20 percent) teaching pertinent elements of the Physical Sciences to their students. Somewhat over half of this time -- 126 hours -- was spent on Roentgenology, with 33 hours in the classroom and 93 hours in the laboratory.

A study of dental materials required 67 hours -- 28 in lecture and 39 in the laboratory. Instruction in Pharmacology, when grouped for the survey, totaled 12 hours: 10 lecture hours and two laboratory hours.

Testing in the important area of the Physical Sciences required 12 hours: six hours each in the classroom and the laboratory. The classroom organization and management in this area required one hour in the classroom and three in the laboratory, a total of four hours.

In summary, 221 hours were spent on the Physical Sciences, 143 in the laboratory, and 78 in the classroom. No field experience was reported in this area.

TREND: An intention to leave this area practically untouched as to hours spent with the exception of some increase in Roentgenology and in the time spent in evaluation and testing.



Lecture
Laboratory
Field

For the purpose of this survey, the clinical sciences were divided into two groups: Chairside Procedures and Dental Laboratory Procedures. The chairside procedures for the dental assistant were classified as (1) operative, (2) endodontics, (3) oral surgery, (4) pedodontics, (5) periodontics, (6) Dental Public Health, (7) orthodontics, and (8) emergency procedures, including first aid. With testing and classroom management, 181 hours were spent in this work. Of this 181 total, operative procedures for dental assistants were reported as requiring 88 hours: 29 in lecture and 56 in laboratory work with an average of three hours spent on field trips in this instructional area.

The hours spent on the other areas of chairside procedures ranged from six for Public Health to 17 for Oral Surgery with lecture and laboratory time about equal for each area, plus an hour average generally required for field work in each case.

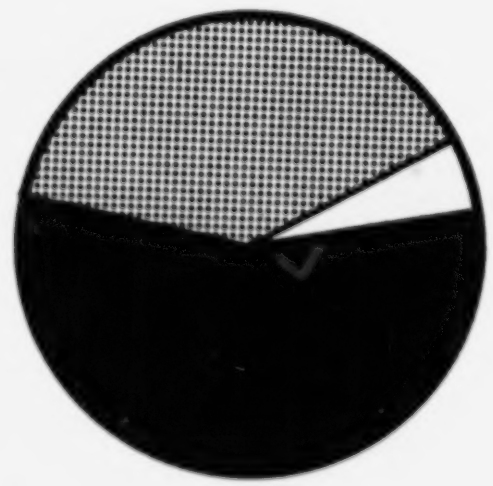
Nine hours were spent in testing their students: five in the classroom and four in the laboratory. Another three hours was spent in classroom organizational activities.

In summary, the Chairside Procedures consumed 181 hours of instructional time: 72 in the classroom; 99 in the laboratory; and 10 on field trips and observation.

TREND: In each of the chairside procedures areas -- no change for any except orthodontics and emergency procedures. Each of these two indicated an increase in future instructional time.

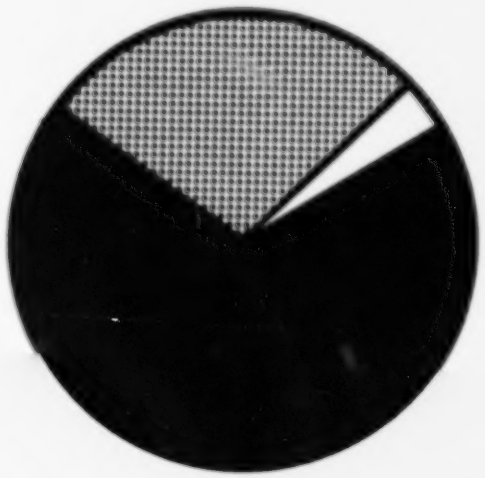
Section IV

CLINICAL SCIENCES CHAIRSIDE PROCEDURES



Section V

CLINICAL SCIENCES DENTAL LABORATORY PROCEDURES



The dental laboratory procedures required 146 hours of lecture, laboratory work, and field trips. The assistant's role in Denture Construction and Repair was presented in 52 hours with 36 of these hours being spent in the laboratory and two on field trips.

Forty-three hours were spent on Crown and Bridge work: 10 in lecture and three in the laboratory, with one hour average on field work.

Orthodontic appliances and mouthguards required 15 hours to present with 10 hours of laboratory and five hours in lecture. Sixteen hours were spent in Safety and care of equipment: 10 in the laboratory and six in lecture.

The area of Inlay Investment Casting was introduced in seven hours, with two in lecture and five in the laboratory.

Testing in the dental laboratory procedures averages nine hours in California junior college programs: five in the laboratory and four in lecture, with three hours spent in classroom organization and management tasks.

The dental laboratory procedures, in summary then, were presented to dental assisting students in 146 hours: 42 in lecture, 99 in laboratory work, and five on field trips.

TREND: Indicated of a small time decrease in Denture Construction and Repair and a slight time increase in the area of Orthodontic appliances.

The art of operating a smooth-running and efficient office practice required 125 hours of the 1,124 hours instructional time. The survey revealed that units on Bookkeeping and Records occupied about one-half of this time, or 59 hours, with 34 of the 59 hours being spent on laboratory practice in this area plus 25 hours in the lecture room.

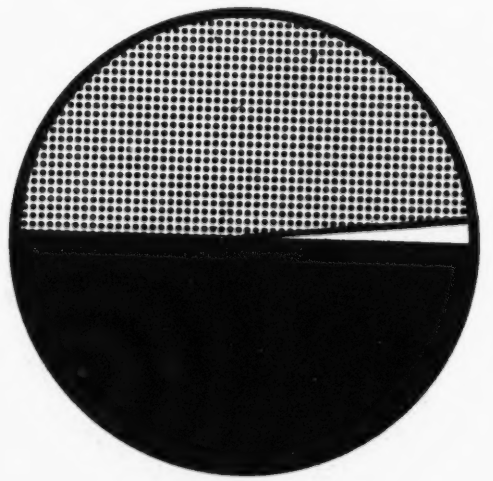
Eleven hours were spent in classroom discussion of the Jurisprudence involved in the dental office and from 11 to 15 hours (of which one-half was in laboratory practice) in each of three other areas: Supplies and Inventory, Insurance Forms and Practices, and Patient Education. About one hour each was spent on telephone techniques and receptionist duties.

About three hours were spent in classroom organizational and management activities and nine hours spent in classroom and laboratory testing.

In summary, of the 125 hours spent in teaching practice administrative duties to these students, 64 hours were reported in lecture, 59 hours in the laboratory, and about two hours were spent on field trips.

TREND: No great change was contemplated with the exception of some increase in insurance work; and a still larger increase in patient education.

Section VI
PRACTICE ADMINISTRATION



Section VII

SUPERVISED PRACTICAL EXPERIENCES

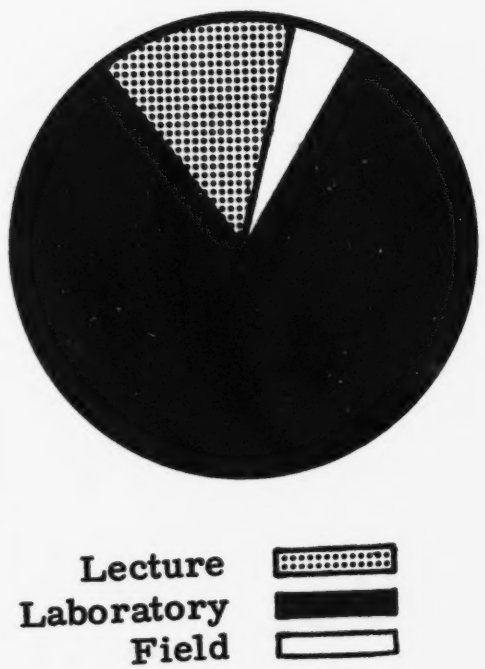
An average of just 20 percent (224) of the 1,124 instructional hours was spent in practical experience in the field. The major percentage of these 224 hours was reported as laboratory work by the instructors involved in this survey while observational or field trips occupied a substantial portion of the balance.

In this very important practical phase of any occupationally-centered instructional program, 143 hours was reported as the average time spent by a student working under direct supervision of a dentist in an on-the-job office situation, including four lecture hours and two hours of field trips or observational visits.

Twenty-eight hours were spent in observing and working in dental clinics and 48 in schools of dentistry, with generally one visit to a dental supply house.

Organizational classroom activities and testing consumed only four hours of the 224 in this phase of their education. In summary, laboratory and practice work consumed 179 hours, field trips 35, and lecturing time only 10 of these 224 hours.

TREND: A mild future increase in dental office and dental school experience.



The respondents to this survey were asked to indicate an estimated average number of hours that a student spent in her general education in connection with but not included in the dental assistant curriculum as such. This figure was reported in at an average of 479 hours.

Some caution should be used in interpreting the general education figures as there seemed to be some overlapping of instructional areas in the various pro-programs as reported.

The 479 hours included work in English, Typing, Speech, the Social Sciences, and the Humanities. First aid was occasionally taught in this area, as well as psychology and nutrition. A wide variation was noted in the amount of time spent in the field of general education.

The above information regarding general education is included in this survey report primarily to give some indication of the additional work required in the AA degree programs and not as any definite guideline. In general, this information may be considered outside of the scope of this report; a study of this phase is recognized as a separate and recommended task.

The instructions to the correspondents specified that general education hours not be included in the figures reported in as part of dental assistant curriculum.

TREND: A future increase in English, Typing, Speech, and Psychology.

Section VIII

GENERAL EDUCATION

PART TWO

SUMMARY OF A MODEL PROGRAM FOR DENTAL ASSISTING

The following model program for dental assisting was constructed and later edited by dental assisting instructors and other professional participants at the Dental Assisting Workshop and Educational Conference held at the Asilomar Conference Grounds, Pacific Grove, California, in August, 1965.

The elements of this training program may be viewed as a normative measure of current curriculum content in the California junior college classes in dental assisting.

It is organized by subject matter; the chronological sequence of instruction being an individual school prerogative.

Block I

24 **INTRODUCTION TO DENTAL ASSISTING**

Objectives: To orient dental assisting students to the profession of dentistry through lecture, discussion, field trips, laboratory experience, and research.

Unit A. History

Topic 1. The Dental Profession
- a. Significant events
- b. Current and future trends
- c. Educational standards

Topic 2. The Dental Assistant
- a. Significant events
- b. Current and future trends
- c. Educational standards

Topic 3. Areas of Practice
- a. General practice
- b. Specialties
  - (1) endodontics
  - (2) oral pathology
  - (3) oral surgery
  - (4) orthodonics
  - (5) pedodentics
  - (6) periodontics
  - (7) prosthodontics
  - (8) public health
- c. Armed Forces, federal and other health services
- d. Teaching
- e. Research

Topic 4. Growth of the Dental Health Team
- a. The dentist
- b. Paradental personnel

Unit B. Professional Organizations

Topic 1. Objectives, Structures, Functions, and Responsibilities
- a. A.D.A. (American Dental Association)
- b. A.D.A.A. (American Dental Assistants Association)
  - (1) C.B.A.D.A.A. (Certifying Board American Dental Assistants Association)
- c. A.D.H.A. (American Dental Hygiene Association)
- d. N.A.D.L. (National Association Dental Laboratories)
- e. Allied groups

Unit C. Principles of Ethics

Topic 1. Internal Relationships
- a. Personnel
- b. Professional conduct

Topic 2. External Relationships
- a. Patient
- b. Allied groups
- c. Professional conduct

Unit D. Terminology

Topic 1. Physiological
- a. Prefixes and suffixes
- b. Basic sciences

Topic 2. Mechanical
- a. Operatory
- b. Laboratory

Topic 3. Dental Procedures

Topic 4. Business Management

Unit E. Health and Grooming

- **Topic 1.** Personal Health
  - a. Physical
  - b. Mental
- **Topic 2.** Personal Care and Cleanliness
- **Topic 3.** Dress
  - a. Professional
  - b. Personal attire

Unit F. Employment and Job Demands

- **Topic 1.** Physical Demands
  - a. Optimum health
- **Topic 2.** Aptitudes and Dexterity
  - a. Basic intelligence
  - b. Coordination
- **Topic 3.** Personal Attributes
  - a. Honesty, tact, and loyalty
  - b. Attitudes
  - c. Personality
  - d. Oral and written communication skills
  - e. Initiative, motivation
  - f. Flexibility, adaptability
- **Topic 4.** Interpersonal Relationships
  - a. Working agreements
  - b. Employer rights
  - c. Employee rights
- **Topic 5.** Safety

Objectives: To bring to the student a basic knowledge of gross anatomy; fundamental of microbiology, oral pathology, nutrition and pharmacology with emphasis in the areas of dental anatomy and sterilization.

Unit A. Introduction to General Anatomy

- **Topic 1.** General anatomical terms
- **Topic 2.** Major systems of the body

Unit B. Anatomy and Physiology of the Head and Neck

- **Topic 1.** Oral Cavity
  - a. Soft tissues
  - b. Teeth
- **Topic 2.** Bones
  - a. Skull
  - b. Face
  - c. Mandible
- **Topic 3.** Muscles
- **Topic 4.** Glands
  - a. Salivary
  - b. Lymphatic
- **Topic 5.** Nerves
- **Topic 6.** Blood Vessels

Unit C. The Teeth and Supporting Structures

- **Topic 1.** Embryology, Growth and Development
  - a. Face and nose
  - b. Tongue and palate
  - c. Teeth chronology of eruption

Topic 2. Histology
- a. Tissues of supporting structures
- b. Tissues of the tooth

Topic 3. Morphology
- a. Surfaces and landmarks
- b. Function of dental arches

Unit D. Pathology of Soft and Hard Tissues

Topic 1. Etiology
- a. Congenital and hereditary
- b. Acquired

Topic 2. Treatment and Tissue Repair

Unit E. Introduction to Microbiology

Topic 1. Microorganisms
- a. Classification
- b. Identification
- c. Transmission
- d. Control

Unit F. Sterilization and Disinfection

Topic 1. Methods

Topic 2. Techniques

Unit G. Diet and Nutrition as Related to Dental Health

Unit H. Pharmacology

Topic 1. Introduction
- a. History
- b. Vocabulary

Topic 2. Classification of Drugs
- a. Source of information
- b. Sources of drugs
- c. Types

Topic 3. Administration of Drugs
- a. Methods

Topic 4. Effects of Drugs
- a. Reactions
- b. Antidotes

Topic 5. Application in Dental Conditions
- a. Indications

Topic 6. Legal Aspects

Topic 7. Prescriptions

Topic 8. Care and Storage

Block III

DENTAL MATERIALS

Objectives: To develop knowledge in the physical and chemical properties of dental materials. To provide an understanding of the proper utilization of dental materials.

Unit A. Introduction

Topic 1. Basic Physical and Chemical Properties of Dental Materials
- a. Measurement systems
- b. Classification and laws of mass and matter
  - (1) liquids
  - (2) solids
  - (3) gases
- c. Natural forces and reactions
- d. Atomic structure and ionic theory

Unit B. Classification of Dental Materials

Topic 1. Gypsum Products

Topic 2. Impression Materials
- a. Colloids
- b. Compounds and waxes
- c. Rubber base -- silicones

Topic 3. Cements
- a. Zinc Oxide -- Eugenol
- b. Zinc phosphate
- c. Silicate
- d. Acrylic

Topic 4. Metals
- a. Pure
- b. Alloys

Topic 5. Porcelains

Topic 6. Abrasives

Topic 7. Chemicals

Unit A. Jurisprudence

Topic 1. Ethics
- a. Principles A.D.A.
- b. Code A.D.A.A.
- c. State Dental Practice Act

Topic 2. Malpractice -- Moral and Legal Responsibility
- a. Dentist
- b. Paradental personnel
- c. Patient
- d. Records

Topic 3. Legislation
- a. State Labor Code
- b. Workmen's Compensation
- c. Unemployment Insurance
- d. Health and Safety
- e. Social Security

Unit B. Human Relations

Topic 1. Patient Oriented

Topic 2. Paradental Personnel

Topic 3. Intraprofessional

Topic 4. Interprofessional

Unit C. Office Procedures

Topic 1. Telephone Techniques

Topic 2. Reception Duties

Topic 3. Forms
- a. Patient records
  - (1) acquaintance
  - (2) case history
  - (3) charting
  - (4) treatment
  - (5) financial
- b. Office records
  - (1) appointment book
  - (2) appointment card
  - (3) day sheet
  - (4) receipt book
  - (5) ledger

Topic 4. Appointment Control
- a. Time
- b. Patient
- c. Operative procedure

Topic 5. Bookkeeping Manual and Machine
- a. Daily entries
- b. Weekly summary
- c. Monthly summary
- d. Yearly summary

Topic 6. Banking Procedure
- a. Forms
- b. Statement reconciliation

Topic 7. Financial Arrangements
- a. Office plans
- b. Bank plans

Topic 8. Credit and Collections

Topic 9. Office Correspondence
- a. Incoming
- b. Outgoing

Topic 10. Files
- a. Business
  - (1) current
  - (2) closed
  - (3) equipment
  - (4) insurance
  - (5) taxes
- b. Patient
  - (1) active
  - (2) inactive
  - (3) recall
  - (4) x-ray

Unit D. Insurance

Topic 1. Terminology

Topic 2. Types of Insurance
- a. State
  - (1) Workmen's Compensation
  - (2) Medicare
- b. Union
- c. Private
  - (1) pre-paid
  - (2) post-paid

Topic 3. Types of Forms
- a. Charting
- b. Form completion
  - (1) qualifications
  - (2) limitations
  - (3) billing
  - (4) treatment
  - (5) coverage

Unit E. Supplies and Inventory

Topic 1. Supplies
- a. Types
- b. Storage
- c. Sources

Topic 2. Inventory Control
- a. Ordering
- b. Indexing
- c. Receiving
- d. Repair and replacement

Objectives: To acquire basic knowledge and develop skill in application of radiology in the dental office.

Unit A. History

Unit B. Principles and Properties

- **Topic 1.** Characteristics
- **Topic 2.** Production of Ray
  - a. Control factors (ma-kvp)
  - b. Control devices

Unit C. Biological Effects of Radiation

- **Topic 1.** Maximum Dosage
- **Topic 2.** Over-Radiation

Unit D. Protection

- **Topic 1.** California Radiation Safety Code
- **Topic 2.** Patient
- **Topic 3.** Operator

Unit E. Dental Films

- **Topic 1.** Composition
- **Topic 2.** Speed
- **Topic 3.** Types
- **Topic 4.** Care and Storage

Unit F. Technique of Exposure

- Topic 1. Bisection of Angle
- Topic 2. Paralleling

Unit G. Processing

- Topic 1. Darkroom Facilities
- Topic 2. Chemical Solutions
- Topic 3. Procedure

Unit H. Evaluation

- Topic 1. Landmarks
- Topic 2. Exposure Faults
- Topic 3. Processing Faults

Unit I. Mounting

- Topic 1. Methods
- Topic 2. Care Mounted Film

Objectives: To adequately prepare the dental assisting students to efficiently assist the dentist in all phases of dental procedures in the operatory.

Unit A. Pre-operative Procedures

Topic 1. Instruments
a. Identification of hand and rotary instruments

Topic 2. Function of Hand and Rotary Instruments

Topic 3. Basic Tray Set-up
a. How to set up basic tray

Topic 4. Passing and Receiving Instruments
a. How to pass and receive instruments

Topic 5. Care of Instruments
a. How to sharpen instruments

Unit B. Equipment

Topic 1. Dental Unit
a. How to care for and maintain the dental unit

Topic 2. Handpieces
a. How to care for various handpieces

Topic 3. The Engine Arm
a. How to change belt on engine arm

Topic 4. Dental Chair
a. How to care for and maintain the chair

Topic 5. Evacuation (oral)
a. How to use evacuation equipment
b. How to care for the evacuator

Topic 6. Instrument and Supply Cabinet
- a. How to arrange instruments in cabinet
- b. How to care for and maintain cabinet

Topic 7. Sanitization of Equipment

Unit C. Care of the Patient

Topic 1. Seating the Patient
- a. How to seat the patient
- b. How to drape the patient

Unit D. Operative Procedures

Topic 1. Anesthesia
- a. How to prepare the syringe

Topic 2. Rubber Dam
- a. How to prepare set-up for rubber dam
- b. How to assist in placement and removal of rubber dam

Topic 3. Restorative Dentistry

Topic 4. Amalgam Alloy
- a. How to prepare amalgam alloy (various methods)
- b. How to prepare set-ups for preparation, condensation and carving of amalgam restorations

Topic 5. Synthetic Restorative Materials
- a. How to prepare silicate materials
- b. How to prepare set-up for silicate materials

Topic 6. Gold Foil
- a. How to prepare set-ups for gold foil restorations
- b. How to anneal gold foil
- c. How to pass gold foil

Topic 7. Gold Inlays
- a. How to prepare set-ups for cavity preparation
- b. How to prepare set-ups for retracting procedures and materials used
- c. How to prepare impression tray
- d. How to load impression tray
- e. How to prepare set-up for temporary restoration
- f. How to prepare set-up for commentation

Topic 8. Prosthetics -- Fixed Bridge
- a. How to prepare set-ups for the various procedures in fixed bridge prosthesis

Topic 9. Prosthetics -- Partial Dentures
- a. How to prepare set-ups for partial dentures

Topic 10. Prosthetics -- Full Dentures
- a. How to prepare set-ups for full denture prosthetics

Topic 11. Endodontics
- a. How to prepare set-ups for the various procedures in endodontics

Topic 12. Oral Surgery

Topic 13. Kinds of Anesthetics
- a. How to prepare set-ups for the various procedures in oral surgery

Topic 14. Periodontics
- a. How to prepare set-ups for the various procedures in periodontics

Topic 15. Dental Public Health Education

Topic 16. Orthodontics
- a. How to prepare set-ups for the various procedures in orthodontics

Topic 17. Emergency and First Aid
a. How to assist in an emergency
b. How to assist in artificial respiration

Topic 18. Pharmacology as it refers to above procedures

Topic 19. Sterilization as it refers to above procedures

Unit E. Post Operative Procedures

Topic 1. Dismissal of patient

Topic 2. Instruments
a. Scrubbing
b. Sterilization
c. Storage

CLINICAL SCIENCES CHAIRSIDE PROCEDURES

Objectives: To develop an understanding of the laboratory procedures performed in the practice of dentistry and to develop skills in performing laboratory techniques which can be effectively accomplished by the dental assistant.

Unit A. Principles of Safety

Topic 1. Rules of Safety

Topic 2. Precaution with Caustics
a. Use and storage
b. Antidotes

Topic 3. Precaution with Laboratory Equipment
a. How to use electrical, gas, and centrifugal equipment safely

Unit B. Care and Maintenance of Equipment, Instruments and Work Areas

Topic 1. Routine Care

Topic 2. Periodic Maintenance

Unit C. Types and Uses of Impression Trays

Topic 1. Metal Trays
a. Identification
b. Selection for use
c. How to clean

Topic 2. Plastic Trays
a. How to construct a custom tray
b. How to modify pre-fabricated trays

Topic 3. Miscellaneous Trays
a. Identification
b. Selection for use

Unit D. Preparation and Uses of Dental Waxes

- Topic 1. Pattern Waxes
- Topic 2. Impression Waxes
- Topic 3. Processing Waxes
- Topic 4. Study Waxes

Unit E. Preparation and Uses of Impression Materials

- Topic 1. Rigid
- Topic 2. Plastic
- Topic 3. Elastic

Unit F. Kinds and Uses of Models

- Topic 1. Materials
  - a. Review
  - b. How to mix
- Topic 2. Types
  - a. Identification
  - b. How to pour
- Topic 3. Trimming
- Topic 4. Finishing

Unit G. Identification of Artificial Dental Prostheses

Unit H. Functions of the Dental Laboratory

Topic 1. Steps in crown and bridge construction

Topic 2. Steps in artificial denture construction and repair

Topic 3. Steps in orthodontic appliances

Topic 4. Steps and fabrication of dental ceramics

Unit I. Principles of Preparing Cases for the Dental Laboratory

Topic 1. Recording
a. How to control case load
b. Checking prescription for completeness

Topic 2. Packaging

Unit J. Principles of Storing Laboratory Materials and Laboratory Equipment

Topic 1. Storing Laboratory Materials

Topic 2. Storing Laboratory Equipment

Unit A. Preoperative Procedures

- Topic 1. Operative Preparation
- Topic 2. Seating Patient

Unit B. Chairside Assisting

- Topic 1. Operative Procedures
- Topic 2. Prosthetics
- Topic 3. Oral Surgery
- Topic 4. Endodontics
- Topic 5. Periodontics
- Topic 6. Pedodontics
- Topic 7. Examination and Diagnosis
- Topic 8. Orthodontics

Unit C. Postoperative Procedures

- Topic 1. Dismissal of Patient
- Topic 2. Operatory Care
- Topic 3. Sterilization

Unit D. X-Ray

- Topic 1. Exposure
- Topic 2. Processing
- Topic 3. Mounting

Unit E. Laboratory

Topic 1. Laboratory Procedures as Indicated within Supervised Area

Unit F. Office Procedures

Topic 1. Communications

Topic 2. Records

RECOMMENDATIONS

1. Third semester in dental school, dental clinic or hospital with dental facilities wherever possible.

2. Fourth semester in selected private offices.

3. A planned program of orientation for dental students and practicing dentists to precede clinical experience of dental assistant trainees.

4. For proper supervision of dental assistant trainees, a ratio of one supervisor to every six students is imperative.

5. For effective evaluation of student achievement, the topic breakdown from BLOCK VI (CLINICAL SCIENCES -- CHAIRSIDE PROCEDURES) and BLOCK VII (CLINICAL SCIENCES -- LABORATORY PROCEDURES) should be utilized.